

**THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE  
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:**

1. An oral gel delivery system for calcium comprising one or more sources of calcium substantially uniformly dispersed in a gel matrix, said delivery system having a final moisture content of between about 10% and about 40% by weight and a water activity of less than about 0.9, and said gel matrix comprising:
  - a) one or more hydrocolloids;
  - b) one or more sugars, sugar syrups, sugar alcohols, or a combination thereof; and
  - c) one or more polyhydric alcohols.
2. The oral gel delivery system according to claim 1, wherein said delivery system has a final pH between about 5.0 and about 9.0.
3. The oral gel delivery system according to claim 1 or 2, wherein said delivery system comprises up to about 40% by weight of said one or more sources of calcium.
4. The oral gel delivery system according to any one of claims 1, 2 or 3, wherein said delivery system comprises between about 0.1% and about 17% by weight of said one or more hydrocolloids, between about 15% and about 55% by weight of said one or more sugars, sugar syrups, sugar alcohols, or combination thereof, and between about 5% and about 50% by weight of said one or more polyhydric alcohols.
5. The oral gel delivery system according to any one of claims 1, 2, 3 or 4, wherein said one or more hydrocolloids are selected from the group of: gelatine, gellan, pectin, modified starch, cellulose and modified cellulose.

6. The oral gel delivery system according to any one of claims 1, 2, 3, 4 or 5, wherein said one or more sugars, sugar syrups or sugar alcohols are selected from the group of: corn syrup, high fructose corn syrup, maltitol syrup and isomalt syrup.
7. The oral gel delivery system according to any one of claims 1, 2, 3, 4, 5 or 6, wherein one or more polyhydric alcohols are selected from the group of: glycerol, lower alkyl ester derivatives of glycerol, propylene glycol and short chain polyalkylene glycols.
8. The oral gel delivery system according to any one of claims 1, 2, 3, 4, 5, 6 or 7 further comprising one or more functional ingredients, wherein the total amount of said one or more sources of calcium and said one or more functional ingredients is less than or equal to 40% by weight of said delivery system.
9. The oral gel delivery system according to claim 8, wherein said one or more functional ingredient is selected from the group of: inulin, fructooligosaccharides, Vitamin D, Vitamin K, Vitamin C, magnesium, phosphorus, zinc, copper, boron, manganese, selenium, fluoride and isoflavones.
10. The oral gel delivery system according to claim 8, wherein said one or more functional ingredients are selected from the group of: fructooligosaccharides, Vitamin D, magnesium, isoflavones, and combinations thereof.
11. An oral gel delivery system for calcium comprising one or more sources of calcium substantially uniformly dispersed in a gel matrix, said delivery system having a final moisture content of between about 10% and about 30% by weight and a water activity of less than about 0.7, and said gel matrix comprising:

- a) one or more hydrocolloids selected from the group of: modified starch, gelatine, gellan, pectin, cellulose and modified cellulose;
  - b) one or more sugar syrups selected from the group of: corn syrup, high fructose corn syrup, maltitol syrup and isomalt syrup, and
  - c) one or more polyhydric alcohols selected from the group of: glycerol and propylene glycol.
12. The oral gel delivery system according to claim 11, wherein said delivery system has a final pH between about 6.0 and about 8.5.
13. The oral gel delivery system according to claim 11 or 12, wherein said delivery system comprises up to about 40% by weight of said one or more sources of calcium.
14. The oral gel delivery system according to any one of claims 11, 12 or 13, wherein said delivery system comprises between about 0.1% and about 17% by weight of said one or more hydrocolloids, between about 15% and about 55% by weight of said one or more sugar syrups, and between about 5% and about 50% by weight of said one or more polyhydric alcohols.
15. The oral gel delivery system according to any one of claims 11, 12, 13 or 14 further comprising one or more functional ingredients, wherein the total amount of said one or more sources of calcium and said one or more functional ingredients is less than or equal to 40% by weight of said delivery system
16. The oral gel delivery system according to claim 15, wherein said one or more functional ingredients is selected from the group of: inulin, fructooligosaccharides, Vitamin D, Vitamin K, Vitamin C, magnesium, phosphorus, zinc, copper, boron, manganese, selenium, fluoride and isoflavones.

17. Use of a gel matrix comprising:
- a) one or more hydrocolloids;
  - b) one or more sugars, sugar syrups, sugar alcohols, or a combination thereof, and
  - c) one or more polyhydric alcohols
- in the preparation of an oral gel delivery system for calcium, wherein said delivery system comprises one or more sources of calcium substantially uniformly dispersed in said gel matrix, and said delivery system has a final moisture content of between about 10% and about 40% by weight and a water activity of less than about 0.9.
18. The use according to claim 17, wherein said delivery system comprises up to about 40% by weight of said one or more sources of calcium.
19. A process for preparing an oral gel delivery system for calcium, said process comprising the steps of:
- (i) preparing a blend of one or more hydrocolloids, one or more sugars, sugar syrups, sugar alcohols, or a combination thereof, and optionally water at a temperature of less than 100°C, wherein said hydrocolloid(s), said sugars, sugar syrups and/or sugar alcohols and said water are in a ratio that will provide a final moisture content to the delivery system of between about 10% and about 40% by weight;
  - (ii) reducing the temperature of said blend to between about 50°C and about 80°C;
  - (iii) dispersing one or more sources of calcium in a solvent comprising one or more polyhydric alcohols at a temperature at or below about 70°C to provide a solvent mixture;
  - (iv) combining said blend from step (ii) with said solvent mixture to provide a gel matrix, and
  - (v) moulding said gel matrix to provide said oral gel delivery system.

20. The process according to claim 19, wherein the amount of said one or more sources of calcium dispersed in said solvent in step (iii) provides up to 40% by weight of said source(s) of calcium in the final delivery system.
21. The process according to claim 19 or 20, wherein preparing said blend in step (i) is at a temperature between about 60°C and about 80°C.
22. The process according to any one of claims 19, 20 or 21, wherein dispersing said one or more sources of calcium in said solvent in step (iii) is at a temperature below about 50°C.
23. An oral gel delivery system for calcium prepared by the process of any one of claims 19, 20, 21 or 22.
24. Use of an effective amount of the oral gel delivery system according to any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10 as a calcium supplement for an animal in need thereof.
25. The use according to claim 24, wherein said calcium supplement is for preventing bone loss in said animal.
26. The use according to claim 24, wherein said calcium supplement is for maintaining or increasing bone strength in said animal.
27. The use according to any one of claims 24, 25 or 26, wherein said animal is a human.
28. Use of an effective amount of the oral gel delivery system according to any one of claims 11, 12, 13, 14, 15 or 16 as a calcium supplement for an animal in need thereof.

29. The use according to claim 28, wherein said calcium supplement is for preventing bone loss in said animal.
30. The use according to claim 28, wherein said calcium supplement is for maintaining or increasing bone strength in said animal.
31. The use according to any one of claims 28, 29 or 30, wherein said animal is a human.
32. A kit for the delivery of calcium to an animal comprising one or more units of the oral gel delivery system according to any one of claims 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10 and optionally instructions for use.
33. A kit for the delivery of calcium to an animal comprising one or more units of the oral gel delivery system according to any one of claims 11, 12, 13, 14, 15 or 16 and optionally instructions for use.
34. The kit according to claim 32 or 33, wherein said animal is a human.